Selections
1932

U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF PLANT INDUSTRY

FIELD NOTES

FORAGE CROP INVESTIGATIONS

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FIELD NOTES.

INSTRUCTIONS.

In case of a series of row or plat tests it is desirable to have all the constant conditions recorded for future reference. This can be done on the blank pages in the front of the book for all points not covered by the topic headings. In case several sets of experiments are recorded in a single book the conditions governing each may be given by filling in the outlines provided. (See pp. 7–11.) The blank pages may be used for any additional data which seem desirable, such as the high, low, and mean temperatures, rainfall, and date of the last killing frost in the spring and of the first killing frost in the fall. At the back of the book are blank pages for convenience in making field calculations and temporary notations. Row numbers should be listed in the order that they occur in the field. Records should be made in rate per cent wherever possible and in such manner that the better the variety or strain the higher the percentage recorded. Rules given under "Explanation of headings and abbreviations used in taking field notes in forage-crop investigations" should be followed, in order that the notes on any given crop may be uniform for all the stations.

8—3728

EXPLANATION OF HEADINGS AND ABBREVIATIONS USED IN TAKING FIELD NOTES IN FORAGE-CROP INVESTIGATIONS.

SIZE OF PLAT.—Stated in fractions of an acre, as $\frac{1}{5}$, $\frac{1}{10}$, etc., or, if nursery rows, length of the row in feet.

RATE OF SEEDING.—Pounds per acre.

STAND.—Given in percentages or number of plants in the row.

DATE.—Given in figures, as 9–15 (September 15).

UNIFORMITY.—Given in percentages.

VIGOR.—Strength or abundance of growth: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

CONDITION.—If the crop is biennial or perennial, give percentages showing what portion has survived the winter.

FOLIAGE COLOR.—Indicate the shade of green as follows: *g*=green; *l g*=light green; *d g*=dark green; *y g*=yellowish green; *g g*=grayish green; *p g*=purplish green. The superlative degree of any of these colors may be indicated by placing *v* before the color abbreviations, as follows: *v l g*= very light green.

HABIT OF GROWTH.—Described by the following terms: *e*= erect; *s e*=suberect; *d*=decumbent (prostrate, tip ascending); *p*=procumbent (trailing); *v*=vining; *b*=bushy.

STEMS PER PLANT.—Average number of stems produced from one seed, as 7–8.

MEASUREMENTS.—Given in inches unless otherwise indicated.

DISEASE RESISTANCE.—Give the percentage of noninfection; best determined by estimating the percentage of infection and subtracting this from 100.

DROUGHT RESISTANCE.—Indicate the comparative vigor of plants under conditions of drought, as follows: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

LODGING.—Described as *none, little, medium, much.*

SHATTERING.—Described as *none, little, medium, much.*

QUALITY.—Indicated as follows: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

ABBREVIATIONS.

GENERAL.—*v*=very; *med*=medium; *p*=poor; *g*=good; *ex*=excellent (indicates an unusually high degree, seldom occurring); *l*=little; *m*=much; *0*=none or nothing; *lg*=long; *s*=short; *sm*=small; *lrg*=large; *ab*=abundant; *few*=few; *cs*=coarse; *sl*=slender.

COLOR.—*v*=violet; *i*=indigo; *b*=blue; *g*=green; *y*=yellow; *o*=orange; *r*=red; *pur*=purple; *pk*=pink; *l*=light (used before a color); *d*=dark (used before a color).

SHAPE.—*ov*=oval; *rd*=round; *obl*=oblong; *lin*=linear; *obo*=obovate; *cor*=cordate; *cyl*=cylindrical; *elip*=elliptical.

Test of, 19

Object

Location

Kind of soil

Character of field

Previous crop

Preparation of seed bed

1.

2.

3.

4.

5.

6.

Seeding method

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Seeding method

6/20 6/25 7/2 7/5 7/9
7/12 7/16 7/18 7/23

Leaf Hopper damage
on 7/23

7-C slight 8B sl. 14B sl
14C severe, (16A 17A 18A 17B 18B
21B 22B injury but may not be leafhopper)
66ABCDEF, 67ABCDEF
68ABC*, 101A, (103* not leafhopper
119BC, 123B, 127A
118D, 109D, 99EF
81D (73EF not hoppers)
65DEF, 22E, 14DF severe
8D

* Proterygmus

130AC, 134AB, 133CD.

132E, 129F,

While leafhoppers are still present (7/23) and no rain for several weeks, the beans are overcoming the effect of hopper injury rapidly. In general a stunting and retarding of blooming has resulted.

Selections Grown at Holgate

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	WJM & RF 10/1/32 Value
0	A	Manchu				7
1	A	68009	7/14	P		5
2	A	68480	7/13	W		5
3	A	68564	7/11	P		5
4	A	68640-1	7/11	W		7
5	A	68778	7/11	P		5
6	A	70091	7/12	W		7
7	A	80494	7/13	P		veg
8	A	84996	7/15	P	tag lodged 7/15	
9	A	88313	7/7	P		5
10	A	70228-1	7/8	P		7
11	A	81035	7/9	P		veg
12	A	85670-1	7/9	P		veg
13	A	86151	7/2	P		veg
14	A	88295-1	7/2	P		7
15	A	86025	7/2	P		veg
16	A	80477	6/26	P		veg
17	A	81025	6/20	P		veg

7+8 2nd row 1933

1931

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	
18	A	80489		6/26	P	veg
19	A	81037		6/25	W	veg
20	A	Manchu		7/5	P+W	
21	A	80491-1		7/5	W	veg
22	A	85665		7/12	P	veg
23	A	86047		7/5	W	veg
24	A	54618-2		7/10	W	7
25	A	68474		7/12	P	6
26	A	68585		7/10	P	5
27	A	68714-1		7/10	P	5
28	A	68763		7/14	P	5
29	A	70019		7/11	W	6
30	A	70205-c		7/21	P	5
31	A	79848		7/11	W	6
32	A	82259		7/14	W	5
33	A	85021		7/12	P	5
34	A	86122		7/9	P	veg
35	A	86468		7/17	P	smooth

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity	Value
36	A	87631-1		7/21	P	8	5
37	A	61940		7/9	P		5
38	A	68434		7/2	P		6
39	A	68474-2		7/5	P		5
40	A	Marchu					
41	A	68516		7/8	P		7
42	A	68551-3		6/26	P		6
43	A	68633-2		7/5	P		7
44	A	68670-1		7/2	P		6
45	A	68692-2		7/12	W		7
46	A	68724-1		6/28	P		6
47	A	68748-1		6/8	P		7
48	A	68803		7/2	P		5
49	A	70014		7/3	P		7
50	A	70201-1		7/14	P		6
51	A	70458		7/5	P		5
52	A	70469-1		7/5	P		7
53	A	70501-1		7/6	P		7

Row	Range	Selection	Color	Seed Bloom	Date Bloom	Color Bloom	
54	A	71850-1		7/23	P		7
55	A	79627		7/9	P		6
56	A	80471		7/3	W		veg.
57	A	81765-1		7/8	W		wild?
58	A	84681		7/5	P		7
59	A	84914-1		7/9	W		7
60	A	Manchu		7/4	P		
61	A	86094		7/16	W		5
62	A	86452		7/18	P+W		5
63	A	87525		7/19	P+W	8	3
64	A	88281		7/8	W		5
65	A	88296-1		7/9	P		5
66	A	86081		7/22	P		smooth
67	A	87622		7/21	P		smooth
68	A	87632		7/23	P		smooth
69	A	81654		7/10	P		veg
70	A	86002		7/3	P		veg?
71	A	81770		7/10	P		wild

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Frost Maturity		value
72	A	79726		7/11	W			4
73	A	84673-1-2		7/10	W+P			3
74	A	88292		7/29	W	7		4
75	A	68530		7/10	W			6
76	A	68692		7/17	P			6
77	A	68762-1		7/5	P			3
78	A	70213-1		7/14	P	8		7
79	A	70460		7/8	W			5
80	A	Mandhu		7/5	P			
81	A	73587		7/11	P+W			5
82	A	84668-1		7/10	P			veg
83	A	86441		7/8	W			5
84	A	88308		7/6	W			3
85	A	60272		7/29	P	7		3
86	A	68479-1		7/12	W	7		8
87	A	68528-1		7/5	P			5
88	A	68622-1		7/12	P			6
89	A	68694-1		7/6	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost		Value
90	A	68768-1		7/14	P			6
91	A	69992-2		7/8	W+P			4
92	A	70231		7/18	P			5
93	A	70462		7/7	P			7
94	A	70503-1		7/3	P			7
95	A	73585-2		7/5	P			7
96	A	80461-1		7/3	P	Nursla		4
97	A	86482		7/23	W			4
98	A	88280		7/14	W+P	7		3
99	A	88305		7/18	P			3
100	A	Mandan						
101	A	80470-1		7/20	P	8		smooth R.
102	A	87620-1		7/10	P	6		3
103	A	79710		7/22	P	7		4
104	A	81042		7/8	W			Ford Veg 7
105	A	54613-2-2		7/10	W			6
106	A	68552-2		7/7	W			5
107	A	70000		6/25	P			

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity	Frost	value
108	A	70520		7/10	P			5
109	A	84662		7/12	P			6
110	A	88302-1		7/18	P	8		3
111	A	68449-1		7/2	P	8		7
112	A	68482		6/27	P			4
113	A	70078-1		7/2	W			5
114	A	70462-1		7/11	P			8
115	A	80844-1		7/14	P	8		5
116	A	84957-2		7/21	P	8		mosaic + dk green 3
117	A	86449-1		7/10	W	7		4
118	A	88302-2		7/18	W	7		Park 6
119	A	70027-2		7/1	P			3
120	A	Mandan		7/4	P+W			
121	A	86501-2		7/3	W	7		4
122	A	84580-1		7/2	P			4
123	A	79648-1		7/1	P+W			4
124	A	84675		6/27	W			4
125	A	68809		6/27	P			3

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	
126	A	70457		7/11	W	6
127	A	86088		7/7	P	smooth
128	A	68432-1		7/8	P	7·4
0	B	Mandu				7
1	B	68427		7/9	P	5
2	B	68488		7/9	P	5
3	B	68587		7/10	P	5 wausco
4	B	68655		7/9	P	5
5	B	68795		7/9	P	5 wausco
6	B	70568		7/11	W	5
7	B	81467		7/9	P	3
8	B	85006		7/10	W	3
9	B	68535-1		7/9	P	6
10	B	70453		7/4	P	6
11	B	84624		7/11	P	vg

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
12	B	86061		7/1	P	veg
13	B	86152		6/25	P	veg
14	B	81023		7/20	P	smooth
15	B	86045-1		7/10	P	3
16	B	80482		6/25	P	veg
17	B	81038		6/26	P	veg
18	B	84923		6/20	P	veg
19	B	795-93		7/10	P	3
20	B	Manchu				
21	B	80493		6/20	P	veg
22	B	86031		7/9	W	6
23	B	03521		7/20	W	4
24	B	65341		7/9	W-P	7
25	B	68479		7/10	W	6
26	B	68599		7/5	P	4
27	B	68715		7/9	P	5
28	B	69503		7/9	W	6
29	B	70021		7/4	W	5

Row	Range	Selection	Seed color	Date Bloom	Color Bloom	Maturity Frost	Value
30	B	70242		7/9	P		5
31	B	80461-1-1		7/8	W		5
32	B	84673-1-1		7/7	P		4
33	B	85492		7/18	W	badly lodged 7/15	3
34	B	86416-1		7/2	W		veg
35	B	86476		7/18	W		5
36	B	88279		7/10	P		5
37	B	63237-1-1		7/7	W		5
38	B	68436		7/7	P		5
39	B	68484-1		7/2	P		5
40	B	Mandan					
41	B	68530-1		7/4	P		5
42	B	68554-1		7/2	P	6	3
43	B	68639-2		7/2	P		4
44	B	68670-2		7/8	P		5
45	B	68701		7/9	W		6
46	B	68724-2		7/7	P+W		5
47	B	68753-1		7/8	P		5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
48	B	69501		7/7	W		6
49	B	70074		7/11	P		6
50	B	70224-1		7/8	W		4
51	B	70459		7/2	P		5
52	B	70470-2		7/7	W		5
53	B	70515-1		7/3	P		5
54	B	72328-1		7/11	P		5
55	B	79628		7/11	P		7
56	B	80498-1		7/12	P		4
57	B	81781		7/11	P		veg
58	B	84682		7/10	P		6
59	B	85012		7/20	W	6 lodged 7/23	4
60	B	Manchu					
61	B	86099		7/7	W		5
62	B	86454		7/7	P		5
63	B	87529		7/8	P		veg
64	B	88282		7/18	W		4
65	B	88297		7/10	W		6

Row	Range	Selection	Seed color	Date Bloom	Color Bloom	Value
66	B	86108		7/20	P	smooth
67	B	87624		7/27	P	smooth
68	B	87634		7/27	P	smooth
69	B	84619		7/3	P	5
70	B	86011		7/4	P	3
71	B	81771		7/12	P	4
72	B	81772		7/6	W	4
73	B	84674		7/8	W	6
74	B	03654-3-4-1-1		7/29	W	8
75	B	68560-1		7/17	P+W	7
76	B	68705-2		7/10	W	5
77	B	69500-2		7/9	W	4
78	B	70221		6/26	W	3
79	B	70471-1		7/12	W	6
80	B	Manchu				
81	B	79761		7/12	P	5
82	B	84914-1		7/4	W	5
83	B	86741		7/6	W+P	4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	maturity Frost		Value
84	B	88310		7/18	W			8
85	B	68011		7/17	W			5
86	B	68483-1		7/12	W	7		4
87	B	68530-2		7/10	P			4
88	B	68629-1		7/7	P			4
89	B	68696-1		7/9	P			4
90	B	68806		7/12	P			5
91	B	70016-1		6/24	P			5
92	B	70238-1		7/8	P			5
93	B	70466-3		7/11	W	7		5
94	B	70518-1		7/4	P			5
95	B	73733-1		7/7	P			5
96	B	80488-1-1		7/18	P+W	7		4
97	B	86485-1		7/17	P			3
98	B	88280-1		7/8	W	7		4
99	B	88306-1		7/20	W	7		5
100	B	Manchu						
101	B	83941		7/8	P			veg

Row	Range	Selection	Seed color	Date Bloom	Color Bloom	Maturity Frost	Value
							4 seed, linear leaf
102	B	79583		7/17	W		6
103	B	80488-1-2		7/15	W	8	4
104	B	84913		7/2	P		veg
105	B	58955		7/27	P+W	8	3
106	B	68679-2		7/25	P		4
107	B	70013-A		7/17	P	8	4
108	B	71845		7/7	W		5
109	B	84668		7/16	P	7	3
110	B	88306		7/20	W	8	5
111	B	68460-1		7/6	P		5
112	B	68576		7/2	P		5
113	B	70087-1		7/5	P		4
114	B	70528-1		7/12	P	8	4
115	B	82209-1		8/9	P	5	2 (mosaic + blanched)
116	B	86028-1		7/21	P	8	3
117	B	86476-1		7/29	P+W	7	3
118	B	88310-1		7/14	W		5
119	B	81785		7/13	P		3

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity	Frost	Value
120	B	Manchu						
121	B	54583		7/22	P			green 6
122	B	86004		7/17	P	7		4
123	B	79691		7/11	W			3
124	B	85663		7/18	P	7		4
125	B	69526-1		7/5	P			4
126	B	70497-2		6/24	P	6		2
127	B	86117	— no stand —					
128	B	Elbin						
0	C	Manchu						
1	C	68443		7/10	P			5
2	C	68526		7/8	P			5
3	C	68598-2		7/7	W			5
4	C	68671		7/5	P			5
5	C	68805		7/7	P			marston 5
6	C	79703		7/7	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
7	C	81784		7/11	W	
8	C	85006-1		7/13	P+W (ex early growth 7/6)	5
9	C	68644-2		6/27	P	6
10	C	70507-2		7/10	P	5
11	C	84667		7/7	P	5
12	C	86105		7/15	W	5
13	C	86153		7/6	P	veg
14	C	86068		7/7	P	smooth
15	C	80462		6/26	P	veg
16	C	80492		6/26	P	veg
17	C	81761		6/27	P	veg
18	C	86410		6/26	P	veg
19	C	80460		7/5	W	veg
20	C	Mandan				
21	C	81022		6/20	W	veg
22	C	86040		7/7	W	veg?
23	C	04007		7/10	W	7 (invasion)
24	C	68423		7/11	P	5

ROW	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
25	C	68481		7/7	W	5
26	C	68600		7/21	P	5
27	C	68725		7/11	W	5
28	C	69532-3		7/12	P	5
29	C	70036-3		7/6	W	6
30	C	70467		7/8	W	6
31	C	80465		7/17	W	4
32	C	84921		7/7	P	4
33	C	85898		7/17	W	3
34	C	86443		7/14	P	4
35	C	86516		7/20	W	4
36	C	88303		7/7	P	5
37	C	65346		7/10	W	5
38	C	68439		7/11	W	5
39	C	68484-2		7/11	P	4
40	C	Manchu		-		
41	C	68533		7/10	W	5
42	C	68572		6/27	P	5

Row	Range	Selection	Seed Color	Date Bloom	color Bloom	Maturity Frost		Value
43	C	68642		7/10	W			5
44	C	68676		7/10	P			4
45	C	68711		7/7	P			4
46	C	68732		6/27	P			4
47	C	68759		7/4	P			5
48	C	69532-3-1		7/7	P			5
49	C	70076		7/8	P			5
50	C	70234		7/8	P			5
51	C	70461-1		7/6	P			4
52	C	70476-2		7/11	P			4
53	C	70519-2		7/7	P			5
54	C	72341		7/7	P			4
55	C	79727		7/4	P			5
56	C	80822		7/7	W			4
57	C	81782		7/13	P			5
58	C	84682-1		7/7	P	8		5
59	C	85012-1		7/14	W			4
60	C	Manchu						

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity	Frost	Value
61	C	86104		7/10	W			5
62	C	86480		7/18	W			3
63	C	87530-4		7/7	P			4
64	C	88286-1		7/4	P			4
65	C	88308-1		7/7	W			5
66	C	86112		7/20	W			smooth
67	C	87627		7/21	P			smooth
68	C	86423		7/27	P			smooth
69	C	84619-1		7/7	P			4
70	C	86024		7/14	W	7		neg
71	C	86006		7/14	P			4
72	C	84578		7/15	W			test for height or disease 4
73	C	84674-1		7/8	W			4
74	C	54609-1		7/21	P			5
75	C	68639		7/10	P			4
76	C	68709-1		7/8	P			4
77	C	69511-1		7/15	P			4
78	C	70237		7/8	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
79	C	70559	7/7		W	5
80	C	Manchu				
81	C	79799	7/8		W	5
82	C	84944	7/8		P	4
83	C	87530-1	7/7		P	5
84	C	88349-1	7/11		W	6
85	C	68446-1	7/6		P	6
86	C	68484-4	7/8		P	4
87	C	68557-3	6/26		P	5
88	C	68631-3	7/7		P	5
89	C	68722-1	6/27		P	5
90	C	69507	6/27		P	5
91	C	70023-2	7/10		P	7
92	C	70242-4-1	7/4		P	5
93	C	70473	7/6		P	5
94	C	70528-3	7/14		P	5
95	C	73780-1	7/10		P	5
96	C	82246-1	7/8		P+W	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
97	C	87530-3		7/8	P		5
98	C	88286		7/8	W		7
99	C	88307		7/8	P		5
100	C	Mandu					
101	C	84588-1		7/6	W	8	4 Weeded
102	C	82308		7/14	W		6
103	C	80488-1-3		7/18	W	8	3
104	C	86134		7/10	P		veg
105	C	58955-1		7/8	P		4
106	C	68712		7/9	W		4
107	C	70205-E		7/23	P	severe mosaic	7/23 3
108	C	72337		7/11	P		4
109	C	84965-1		7/18	P		5
110	C	54607-10a		7/11	W		4
111	C	68463-2		6/27	P		5
112	C	68621-2		7/10	P		5
113	C	70202-1		6/26	P		5
114	C	79616		7/4	W		4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
115	C	82532-2				4	3
116	C	86050		7/21	P	8	3
117	C	86504		7/23	W	8	4
118	C	88311-1		6/27	P+W		3
119	C	81785-1		7/2	P+W	8	3 7/23 severe mosaic
120	C	Manchu					
121	C	79589		7/7	P		reg
122	C	86145		7/15	W		6 4 seeded-breeding
123	C	79712		7/4	W	7	3
124	C	54576-5-1		7/8	W		6 area
125	C	70009		7/10	W		5
126	C	72331		6/25	W	7	4
127	C	86125		7/6	P		
128	C	Soysota		7/22	P		

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
0	D	Mandan				7
1	D	68460	7/7	P		5
2	D	68543	7/8	P		5
3	D	68611	7/7	P		5
4	D	68704	7/8	P		5
5	D	69533	7/8	P		5
6	D	79745	7/11	W		5
7	D	82222	7/8	P		4
8	D	86069	7/15	P		smooth
9	D	69500-1	7/6	W		5
10	D	79619	6/27	P		5
11	D	84917	7/4	P		
12	D	86120	6/27	P		
13	D	86483	7/8	P		
14	D	86119	7/10	P		
15	D	80467	7/5	P		
16	D	80496	6/20	P	sw	
17	D	81955	6/19	P		

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
18	D	86010		6/26	P	
19	D	804601		7/6	W	veg
20	D	Manchu				
21	D	81778		7/7	P	veg
22	D	86041		7/6	W	
23	D	05316		7/8	P	6
24	D	68429		7/7	W	5
25	D	68503		7/12	P	5
26	D	68664		7/8	P	5
27	D	68728		7/8	P	6
28	D	69991		7/8	W	5
29	D	70084		7/7	P	5
30	D	70503		7/5	P	5
31	D	80472		7/17	W	veg
32	D	84976-1		7/12	P	5
33	D	86076		7/11	P	3
34	D	86447		7/6	P	5
35	D	86737		7/17	W	3

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost		Value
							ames	
36	D	88305-1		7/15	W			5
37	D	65949		7/3	P			5
38	D	68454-1		6/27	P			6
39	D	68485		7/10	W			5
40	D	Manchu		7/4	P			
41	D	68533-1		7/8	P			5
42	D	68586-1		7/6	P			5
43	D	68648-1		7/8	P			5
44	D	68676-1		7/8	P			5
45	D	68715-2		6/27	P	7		5
46	D	68732-1		7/9	P			5
47	D	68765-1		7/9	P			5
48	D	69533-1		7/8	P		ames	5
49	D	70087		7/8	P			4
50	D	70241		7/7	P			4
51	D	70463-1		7/8	W			5
52	D	70495-1		7/7	P			4
53	D	70541		7/18	P			4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost		Value
54	D	73780		7/9	P			5
55	D	79743		7/7	P			5
56	D	80844		7/18	P			4
57	D	84578-1		7/17	W			4
58	D	84683-a		7/11	P			5
59	D	85877		7/21	W	7		4
60	D	Manchu					mixed	
61	D	86137-1		7/9	P			veg
62	D	86482-1		7/22	P	7		4
63	D	87530-5		7/8	P	7		4
64	D	88290		7/14	P			5
65	D	84973		7/20	P			smooth
66	D	86112-1		7/10	W	7	saved all	het for pubescence 7/9/32 smooth included
67	D	87628		7/29	P			smooth
68	D	80461		7/6	P	7		veg
69	D	84673-1		7/9	W	8		5
70	D	86026-2		7/18	P			5
71	D	86142		7/14	P			veg

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost		Value
72	D	84579		7/8	W			4
73	D	86136		7/10	W			veg
74	D	68430		7/9	P			5
75	D	68661-1		7/6	P			5
76	D	68710		7/9	W			5
77	D	69530		7/7	P			4
78	D	70242-4		7/4	W			5
79	D	70566-2		7/12	P			5
80	D	Mandu						
81	D	81764		7/13	P			3
82	D	85009-2		7/18	W	8		4
83	D	87574		7/8	P			5
84	D	04001-B		7/12	P			5
85	D	68457-1		7/9	P			7
86	D	68494-2		7/9	P			5
87	D	68609		7/8	P			5
88	D	68663-3		7/15	W			amer 6
89	D	68725-1		7/5	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
90	D	69507-1		7/15	P		7
91	D	70080-1a		7/11	P		7
92	D	70247-1		7/8	P		5
93	D	70473-1		7/5	P		5
94	D	70558		7/10	P		5
95	D	79692		7/8	P		5
96	D	84944-1		7/17	P		5
97	D	87619-1		7/10	P		5
98	D	88298-1		7/11	W		7
99	D	88357		7/10	W		4
100	D	Manchu					
101	D	84614		7/4	P		4
102	D	84588		7/10	W	7	1
103	D	70543		7/4	P		4
104	D	86135		7/15	W	7	veg
105	D	61947		7/22	W		4
106	D	68731		7/13	P		5
107	D	70225		7/17	W	7	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
108	D	79671		7/5	P	7	3
109	D	86075-1		7/29	P	8	smooth
110	D	54608-2		7/8	P	8	5
111	D	68470-3		7/11	P		5
112	D	68767		6/26	P		5
113	D	70208		7/12	P	7	4
114	D	79695		6/25	P		5
115	D	83939		7/7	P		4
116	D	86076-2		7/18	P	8	3
117	D	86737-1		7/17	W+P	7	3
118	D	86126		7/15	P		mauscon smooth
119	D	84713		7/14	P	7	3
120	D	Manchu					
121	D	79705		7/7	W	7	3
122	D	88288		7/6	P		3
123	D	79857		7/7	W		4
124	D	58957		7/23	W		smooth
125	D	70216		7/10	W		5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
126	D	79467		6/24	P		4
127	D	86131		7/20	P		6
128	D	Mukden		7/29	W	chlorotic	8/9
0	E	Manchu		7/4	P		7
1	E	68461		7/8	P		5
2	E	68555		7/10	P		5
3	E	68627-1		7/10	P		5
4	E	68708		7/12	P	slow growing sport	6
5	E	70001		7/7	P		5
6	E	79874		7/10	W	mauve	6
7	E	84992		7/14	W		
8	E	86470		7/17	P		
9	E	70192-3		7/14	P		5
10	E	79874-1		7/5	P		6
11	E	84983		7/18	P		
12	E	86132		6/27	W+P		

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
13	E	86485		7/9	P	
14	E	86119-1		7/21	P	4
15	E	80470		6/26	P	
16	E	80498		6/27	P	
17	E	86413		6/25	P	hay 6
18	E	86144		7/12	P	5
19	E	80469		6/27	W	heterozygous for blooming 5
20	E	Manchu				
21	E	82278		7/23	P	slow grown 4/6/52 2" tall field 5" tall breeding 6
22	E	86045		7/14	P	
23	E	50523m		7/4	W	5
24	E	68461-1		7/15	P	4
25	E	68508		7/11	W	5
26	E	68706-1		7/6	P	5
27	E	68736		7/12	W	5
28	E	69996-2		7/10	W	7
29	E	70089		7/8	W	5
30	E	70516		7/8	P	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Boot		Value
31	E	80536		7/7	W			4
32	E	84999		7/7	P			4
33	E	86102		7/4	P			5
34	E	86450		7/4	W			5
35	E	87614		7/12	P		large y seed in harvest	6
36	E	88311		6/27	W			4
37	E	68010		7/3	W			5
38	E	68457		7/10	W			5
39	E	68494		7/10	P			5
40	E	Manchu						
41	E	68533-2		7/10	W	7		5
42	E	68604-2		7/6	P			5
43	E	68656-4		6/27	P			5
44	E	68685		7/7	W			5
45	E	68718-2		7/5	P			5
46	E	68746		6/26	P	7		5
47	E	68770		7/6	P			5
48	E	69993-2		7/5	W			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
49	E	70192-2		7/8	P	.	5
50	E	70251-1		7/8	P		5
51	E	70466-4		7/7	W		7
52	E	70500-2		7/4	P		5
53	E	70546		7/7	P		4
54	E	79613		7/10	P		6
55	E	79747		7/10	P		4
56	E	81024		7/8	P		veg.
57	E	84610-1		7/14	P		5
58	E	84685		7/8	P		4
59	E	86050-1		7/14	P		5
60	E	Manchu					
61	E	86445		7/8	P	7	5
62	E	86512		7/22	P+W	6	4
63	E	87614-1		7/8	P	7	6
64	E	88294		7/7	W		6
65	E	86073		7/29	P		smut
66	E	86127-1		6/24	P		smutt

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost		Value
67	E	87629		7/23	P			smooth
68	E	80671		6/27	P			veg
69	E	84673-2		6/26	P			5
70	E	87525-1		7/6	W	6		4
71	E	88284		7/6	P	7		4
72	E	84610		7/17	P			Wauseon Hay 5
73	E	86419		6/25	P			
74	E	68455		7/6	P			5
75	E	68677		6/27	W			5
76	E	68729-2		7/9	P			5
77	E	69995-2		7/12	W	7		4
78	E	70253		7/8	W			6
79	E	72342-1		7/12	P			5
80	E	Manchu						
81	E	82222-1		7/5	W			5
82	E	85664-1		7/29	W	7		3
83	E	87619		7/14	P			4
84	E	54613-1		7/13	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
85	E	68465-1		7/7	P		5
86	E	68521-1		7/8	P		5
87	E	68609-1		7/7	P		5
88	E	68680		7/12	W		5
89	E	68736-1		7/9	W		5
90	E	69512		7/5	P		5
91	E	70189-3		7/12	P		5
92	E	70247-2		7/11	P		6
93	E	70485-1		7/5	P		4
94	E	71161-2		6/26	P		5
95	E	79696		6/27	P		6
96	E	85009-1		7/23	W	7	3
97	E	87620		7/12	W		5
98	E	88300-1		7/14	P		5
99	E	86135-1		7/23	W	6	smut
100	E	Manchu					
101	E.	84684		7/5	P		veg. 5
102	E	79587		7/23	P		5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity	Frost	Value
103	E	81030	7/8	W				veg
104	E	53931-1-2	7/14	P	7			4
105	E	62483-2	7/19	W	6			4
106	E	68761	7/10	P				5
107	E	70229	7/11	W				6
108	E	82532-1	8/1	W	5			4
109	E	86478	7/12	W				area 6
110	E	61013	7/12	W				5
111	E	68470-3-1	7/1	P	8			5
112	E	69515-2	7/17	W	6			4
113	E	70242-2	7/23	P	6			4
114	E	79700	7/7	P				5
115	E	83940-1	7/10	P				5
116	E	86098	7/23	W				4
117	E	87530-2	7/14	P	7			4
118	E	86081-1	7/23	P	8			little grey but with smooth
119	E	86026-1	7/21	W	7			5
120	E	Mandan	7/4	W+P				

Row	Range	Selection	Seed Color	Date Bloom	color Bloom	Maturity Frost	Value
121	E	79712-1		7/5	P	8	5
122	E	79609		7/10	W		5
123	E	84970		7/17	W	7	veg
124	E	68668		6/27	W		4
125	E	70223		6/27	W		4
126	E	79679		6/26	W		4
127	E	86139		7/10	P		
0	F	Manchu					7
1	F	68466		7/7	P		5
2	F	68562		7/7	P		5
3	F	68629		7/8	P		5
4	F	68741		7/9	W		5
5	F	70036-1		7/9	W		5
6	F	79885		7/7	P		6
7	F	84992-1		7/13	W		

Row	Range	Selection	Seed color	Date Color Bloom	Bloom	Maturity Front		Value
8	F	86517		7/7	W			
9	F	70197-1		7/9	P			maroon 6
10	F	80844-2		7/6	P	8		veg sel
11	F	85014		7/18	W			4
12	F	86140		7/5	P			
13	F	87527		6/27	W			
14	F	86127		6/26	P			
15	F	80476		6/25	P			
16	F	81021		6/20	P			
17	F	86417		6/22	P			
18	F	79693		7/18	P			long 6
19	F	80491		7/6	W			veg
20	F	Manchu						
21	F	83942		6/21	P			
22	F	86046		7/12	P			4
23	F	54616-3		7/15	P			5
24	F	68465		7/10	P			5
25	F	68521		7/8	P			5

Row	Range	Selection	Seed color	Date Bloom	color Bloom	Maturity Frost		
						ex early hay 7/9/32		Ames
26	F	68713		7/8	W			6
27	F	68758-1		7/9	P			5
28	F	70017		7/8	W			5
29	F	70188		7/17	P			5
30	F	73772		7/7	W+P			5
31	F	81773		7/18	W	7		3
32	F	85009		7/18	W			3
33	F	86121		7/9	W			4
34	F	86463		7/23	P			6
							Ames	
35	F	87618		7/14	P			5
36	F	88358		7/8	W	8		5
37	F	68424-1		7/6	P			5
38	F	68474-1		7/5	P			5
39	F	68501-2		6/25	P			5
40	F	Manchu						
41	F	68551-2		7/8	P			4
42	F	68605		7/7	W			5
43	F	68661		7/6	P			5

Row	Range	Selection	Seed color	Date Bloom	Color Bloom		Maturity Frost
44	F	68687-1		7/9	P		6
45	F	68719-1		7/9	P		4
46	F	68748		7/9	W		5
47	F	68788-1		7/11	W		5
48	F	70011-1		7/12	P		
49	F	70189		7/9	W		6
50	F	70457		7/10	W		5
51	F	70469		7/15	W	8	7
52	F	70500-3		7/10	W	8	5
53	F	70561		7/8	W	7	6
54	F	79615		7/4	P		amer 7
55	F	79780		7/6	P	8	5
56	F	81045		7/14	P	7	veg
57	F	84679		7/6	P		4
58	F	84686		7/7	P		5
59	F	86087		7/17	W		4
60	F	Manchu					
61	F	86449-1		6/27	W	9	6

ROW	Range	Selection	Seed Color	Date Color Bloom	Maturity Frost	value
62	F	86518		7/7 W		veg
63	F	87617		7/9 P		veg
64	F	88294-1		7/7 W	8	4
65	F	86075		7/23 P		smo
66	F	87526		7/14 P		smo
67	F	87631		7/21 P		smo
68	F	81033		6/25 P		veg
69	F	84679-1		7/12 P	7	4
70	F	81040		7/10 W		veg
71	F	88287		7/17 P	8	5
72	F	84673		7/12 W		5
73	F	86519		6/25 P		4
74	F	68483-1-1		7/15 P	8	5
75	F	68679		7/9 W+P		5
76	F	68756		7/9 W		5
77	F	70095-1		7/18 P	1	4
78	F	70456		7/8 P		6
79	F	73583		7/13 P		5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	value
80	F	Manchu					
81	F	84665	7/14	P	8		4
82	F	86106	7/5	W			5
83	F	88290-1	7/14	W	7		6
84	F	57330	7/7	W			5
85	F	68475-1	7/11	P			5
86	F	68523	7/9	P			5
87	F	68610	6/26	P			5
88	F	68683-4	6/25	P			8
89	F	68760-2	7/12	P			5
90	F	69992	7/8	W			5
91	F	70212	7/7	P			6
92	F	70460-1	7/7	P	8		6
93	F	70490-1	7/9	P			2 drying 3
94	F	71850	7/9	W			6
95	F	79773	6/25	P			5
96	F	86461	7/27	W	8		4
97	F	87630	8/6	P			4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
98	F	88303-1		7/9	P	8	5
99	F	87528		6/26	P		
100	F	Manchu					
101	F	86007		7/14	P	8	veg
102	F	79645		7/21	P	7	2 dials 5
103	F	81030-1		7/10	W		veg
104	F	54610-3-1		7/20	W		amer 8
105	F	68475		7/10	P		5
106	F	68761-3		7/5	W		5
107	F	70486		6/26	W		4
108	F	83940		7/10	P		5
109	F	86501		7/8	W		5
110	F	68421		7/5	P		5
111	F	68470-3-2		7/9	P+W	6	5
112	F	70077-1		7/10	P		5
113	F	70242-2-1		7/9	P	7	2 dials 5
114	F	80836-1		7/27	W	7	5
115	F	84957-1		7/13	P	8	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Maturity Frost	Value
114	F	86423-1		7/21	P		5
117	F	87575		7/17	P	7	4
118	F	86081-2		7/29	P	8	4
119	F	86145-1		7/13	W+P	7	5
120	F	Manchu					
121	F	79836		7/6	W	7	4
122	F	79648		7/8	W		
123	F	84970-1		7/15	W	7	neg
124	F	68680-2		7/10	P		4
125	F	70245		6/26	W		4
126	F	85670		7/10	P		5
127	F	79699		6/26	P		4

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10/1/32

Selection from Washington

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
129	A	80841-1		7/20	P+W	8	4
130	A	84987		7/20	P		smut
131	A	85666		7/13	W	7	veg
132	A	86071		7/20	P		4
133	A	86146		7/22	P	7	4
134	A	86510		7/18	W	7	4
135	A	88481		7/11	P		veg?
136	A	88811		7/18	W	8	4
137	A	89054		6/27	W+P		4
138	A	89782		8/2	W+P	chlorotic 8/9	4
139	A	90575		7/2	W		5
140	A	Manchu		7/2	P		
141	A	91106		6/27	W		4
142	A	91131		7/1	W		4
143	A	91144		6/27	W		4
144	A	91158		6/27	W		4
145	A	91343		7/2	P		3
146	A	92466		7/11	W		6

Row	Range	Selection	Seed color	Date Bloom	Color Bloom		Aphromen
147	A	92563		7/10	P		5
148	A	92571		7/4	W		4
149	A	92578		7/9	P		5
150	A	92586		7/14	W		7
151	A	92592		7/9	W		5
152	A	92598		7/10	W		6
153	A	92606		7/4	W		5
154	A	92618		7/18	W		7
155	A	92629		7/9	W		5
156	A	92636		7/22	P		5
157	A	92645		7/13	P		5
158	A	92651		7/18	W	8	6
159	A	92659		7/14	W	6	5
160	A	Manchu					
161	A	92665		7/6	W		5
162	A	92672		6/26	W		5
163	A	92679		7/2	W		5
164	A	92685		7/2	W	6	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
165	A	92693		7/11	P		5
166	A	92700		7/11	W few P		5
167	A	92709		7/10	W		6
168	A	92719		7/10	P	8	4
169	A	92727		7/10	P	8	4
170	A	93560		7/12	P+W		4
171	A	88502		7/18	W	8	4
172	A	84631		7/17	W	4 seeded	Diest 6
173	A	88823		7/7	P		veg breeding - green cot
174	A	92557		7/24	P	8	6
175	A	91715		7/24	W	7	breeding 6
176	A	87540		7/22	P	6	3
177	A	92733		7/10	W		gr cotyledon 6
178	A	Manchu		7/8	P		
179	A	Manchu		7/7	P		
180	A	Manchu					

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
129	B	81044-1		7/14	P		neg.
130	B	85340		7/10	P		5
131	B	85873		7/14	W	7	neg
132	B	86078		7/25	P		5
133	B	86154		7/24	P		5
134	B	86738		7/24	P		smooth
135	B	88484		6/24	P	8	3
136	B	88815		7/9	W	7	4
137	B	89063		6/27	W		4
138	B	90221		7/7	P		4
139	B	90578		7/3	W		4
140	B	Mandu					
141	B	91110		6/24	P+W	6	3
142	B	91138		7/2	W		5
143	B	91149		7/3	W		5
144	B	91162		7/18	P		4
145	B	91348		7/10	P	7	3
146	B	92467		6/25	P	7	3

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
147	B	92564		7/2	P	4
148	B	92572		7/3	P	4
149	B	92579		7/7	P	5
150	B	92587		7/13	W	6
151	B	92593		7/11	W	5
152	B	92599		7/7	W	5
153	B	92607		7/10	W	6
154	B	92619		7/10	W	5
155	B	92630		7/9	W	5
156	B	92637		7/11	P	5
157	B	92646		7/7	P	5
158	B	92653		7/9	W	7
159	B	92660		7/9	P	5
160	B	Mandan				
161	B	92667		6/27	W	4
162	B	92673		6/26	W	4
163	B	92680		7/8	W	5
164	B	92686		7/2	W	4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value	
165	B	92694		7/9	P		5	
166	B	92701		7/18 early hay 7/15	W		6	
167	B	92711		7/9 early hay 7/15	W		6	
168	B	92721		7/13	W	7	5	
169	B	92729		7/7	P		5	
170	B	93565		7/7	P+W		5	
171	B	89142		7/7	P	7	3	
172	B	84742		7/24	P	8	3	
173	B	90405		7/25	P+W	8	3	
174	B	92559		7/18	W	7	4	green hay
175	B	92560		7/23	P	8	6	
176	B	88458		8/7	W		4	
177	B	93060		7/13	P+W		4	
178	B	Manchu		7/2	P			
179	B	Manchu		7/13	P+W			
180	B	Manchu						

Manchu

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
129	C	82295	7/20	P			5
130	C	85382	7/14	P	8		4
131	C	85878	7/20	W	7		3
132	C	86095	7/14	P			4
133	C	86457	7/12	P			smooth
134	C	87615	7/13	W			veg
135	C	88495	7/11	W			5
136	C	88824	7/8	W			3
137	C	89070	7/2	W+P			4
138	C	90251	8/2	P	7	chlorotic	2
139	C	91089	7/4	W			5
140	C	Manchu					
141	C	91124	7/4	W			5
142	C	91135	7/3	W+P			5
143	C	91150	7/7	P			5
144	C	91168	7/8	W			5
145	C	91558	7/2	W+P			5
146	C	92468	6/27	P			5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
147	C	92567		7/10	W		5
148	C	92573		7/14	P		5
149	C	92580		7/8	W		5
150	C	92588		7/13	W		5
151	C	92594		7/7	W		5
152	C	92601		7/14	W		5
153	C	92608		6/27	W		5
154	C	92620		7/7	W		5
155	C	92631		7/10	W		5
156	C	92638		7/14	P		5
157	C	92647		7/9	W	8	7
158	C	92654		7/7	W		5
159	C	92661		7/6	P		5
160	C	Manchu		7/4	P		
161	C	92668		7/4	W		5
162	C	92674		7/4	W		5
163	C	92681		7/5	W		5
164	C	92688		7/3	W	6	6

x early beg 7/6

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
165	C	92695		7/10	P		5
166	C	92702		7/15	W		5
167	C	92712		7/14	P	8	5
168	C	92722		7/9	W		5
169	C	92730		7/10	W		7
170	C	93566		7/5	W		5
171	C	90258		7/23	P	8	leg 6
172	C	84750		7/14	W		4
173	C	91340		7/20	P	7	3
174	C	82235		7/20	P	7	3
175	C	83881		7/27	P	6	2
176	C	88468		7/12	P		4
177	C	98259 SY Fukunaga	seeded 62	7/19	P		reg
178	C	Manchu					
179	C	Manchu					
180	C	Manchu					

Row	Range	Selection	Seed color	Date Bloom	Color Bloom		Value
129	D	83933		7/24	P	8	4
130	D	85619		7/3	P	7	3
131	D	86022-1		7/10	P		4
132	D	86111		7/16	P		5
133	D	86469		7/27	P	8	smooth
134	D	87633		7/24	W	7	3
135	D	88497		7/4	W	7	4
136	D	88825		7/10	P		4
137	D	89128		7/11	W		veg
138	D	90256		7/19	WP	7	5
139	D	91091		7/1	W		5
140	D	Manchu					
141	D	91125		7/7	W		5
142	D	91141		7/7	W		5
143	D	91151		7/4	W		5
144	D	91169		7/11	W		dwarf 6
145	D	91559		7/3	P+W		5
146	D	92469		6/24	P		4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
147	D	92568		7/10	P		5
148	D	92575		7/11	W		5
149	D	92582		7/10	W		5
150	D	92589		7/17	W		5
151	D	92595		7/10	W		5
152	D	92602		7/11	W		amp 6
153	D	92611		7/4	W		5
154	D	92623		7/11	W		5
155	D	92632		7/10	W		5
156	D	92639		7/8	P		5
157	D	92648		7/15	P		5
158	D	92656		7/7	W		4
159	D	92662		7/9	P	7	5
160	P	Manchu					
161	D	92669		6/27	W		4
162	P	92676		7/8	W		5
163	D	92682		7/7	W	7	4
164	D	92689		7/5	W	7	4

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		value
165	D	92696		7/7	P		5
166	D	92704		7/14	P		5
167	D	92716		7/7	P		5
168	D	92724		7/11	W		5
169	D	92731		7/13	P		5
170	D	84609-1		7/10	W	7	3
171	D	92556		7/13	P		5
172	D	88492		7/17	W		4
173	D	91346		7/15	P+W	8	4
174	D	84896		7/25	P	8	3½
175	D	84609		7/17	P		4
176	D	89146		7/5	P+W		veg
177	D						
178	D	Manchu					
179	D	Manchu					
180	D	Manchu					

snow widower freely

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
129	E	84671		7/27	W	5	4
130	E	85625-1		7/19	W		5
131	E	86053		7/15	P		5
132	E	86112		7/20	W+P		smooth
133	E	86474		8/7	P	7	4
134	E	88455		6/24	P		4
135	E	88505		6/24	P		4
136	E	88826		7/20	W	6	3
137	E	89134		7/10	P	7	4
138	E	90389		7/10	W		5
139	E	91092		7/5	W		5
140	E	Manchu					
141	E	91126		6/28	W		4
142	E	91142		6/27	W+P		5
143	E	91154		6/27	W		4
144	E	91179		6/27	W		4
145	E	92466		7/5	P		5
146	E	92470		6/25	P		3

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom	Value
147	E	92569	7/6		W	6
148	E	92576	7/10		W	5
149	E	92583	7/7		W	5
150	E	92590	7/10		W	6
151	E	92596	7/9		W	5
152	E	92603	7/8		W	6
153	E	92613	7/9		W	6
154	E	92625	7/8		P	4
155	E	92633	7/10		W	5
156	E	92640	7/8		P	4
157	E	92649	7/11		P	6
158	E	92657	7/7		P	5
159	E	92663	7/8		P	5
160	E	Manchu				
161	E	92670	7/5		W	4
162	E	92677	7/7		W	5
163	E	92683	7/7		W	4
164	E	92691	7/14		P	5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
165	E	92698		7/22	P	8	5
166	E	92706		7/10	W		5
167	E	92717		7/5	P		5
168	E	92725		7/10	P		6
169	E	92734		7/5	W+P	7	4
170	E	84708		7/14	P		4
171	E	93054		7/15	P		4
172	E	88809		7/20	P		4
173	E	91347		7/14	PW	8	4
174	E	88463		8/2	P	8	4
175	E	85272		7/24	P	7	4
176	E	89772				7	3
177	E						
178	E	Manchu					
179	E	Manchu					
180	E	Manchu					

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
129	F	84985	7/26	W	6		smooth
130	F	85130	7/22	P			6
131	F	86063	7/18	P			6
132	F	86113	7/14	P			veg
133	F	86475	8/7	P	8		5
134	F	88479	7/14	W		ames	7
135	F	88508	7/7	W			5
136	F	89053	7/7	W			5
137	F	89139	6/25	P+W			3
138	F	90574	7/4	W			5
139	F	91104	7/5	W			5
140	F	Manchu					
141	F	91129	7/4	W			4
142	F	91143	7/4	W			5
143	F	91156	7/11	W+P			5
144	F	91180	7/7	W		ames	6
145	F	92461	7/3	P	P		5
146	F	92561	7/8	P		ames	6

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
147	F	92570		7/7	W		6
148	F	92577		7/9	W+P		5
149	F	92584		7/4	W	ames	8
150	F	92591		7/7	W		5
151	F	92597		7/8	W		5
152	F	92605		7/9	W		5
153	F	92617		7/7	W		6
154	F	92627		7/11	W	ames	7
155	F	92634		7/10	P		5
156	F	92641		7/10	W	7	7
157	F	92650		7/14	W	ames	8
158	F	92658		7/7	P		5
159	F	92664		7/5	P		4
160	F	Manchu					
161	F	92671		7/6	W	ames	6
162	F	92678		6/26	W		4
163	F	92684		7/3	W	6	4
164	F	92692		7/14	P		5

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
165	F	92699	7/14	P			5
166	F	92707	7/8	W			5
167	F	92718	7/8	W+P			4
168	F	92726	7/10	P	8		4
169	F	93559	7/11	P			4
170	F	86138	7/16	P			5
171	F	84608	7/12	P			5
172	F	88818	7/16	W			5
173	F	91729	7/17	W			5
174	F	91350	7/11	P	8		4
175	F	87084-1	8/3	P			3
176	F	91349	7/6	P	8		3
177	F						
178	F	Manchu					
179	F	Manchu					
180	F	Manchu					

2 Rod Row 1932

Row	Range	Selection	Seed color	Date Bloom	Color Bloom	Value
185	A					
183	A					
181	A					
187	A					
189	A					
191	A	86100		7/11	P	veg
193	A	86128		7/18	P	5
195	A	86455		7/17	PW	4
197	A	88289		7/4	W	5
199	A	Manchu				
201	A	88297-1		7/10	P	spore 5
203	A	88312		7/17	W ?	6
205	A	88354		7/5	W ?	5
207	A	81036		7/11	W	veg
209	A	86026		7/18	W	4
211	A	84581		7/17	P	oil 6
213	A	81765		7/9	W	5
215	A	86038		7/10	W	veg
217	A	Manchu				

Abortion
Lodging
Shriveled
Too different
Not Pedigree
Not Selection
Discarded

Row	Range	Selection	Seed Color	Date Bloom	color Bloom		Value
181	B	54592-1		7/20	W	7	7
183	B	80490-1		7/17	P		veg
185	B	82246		7/5	W		5
187	B	84928		7/12	P		veg
189	B	85664		7/11	P		5
191	B	86101		7/11	P		5
193	B	86129		7/11	W		6
195	B	86502		7/18	W	8	5
197	B	88291		7/10	P	8	4
199	B	Manchu		7/4	P		
201	B	88298		7/10	W	8	5
203	B	88349		7/11	W	7	5
205	B	88355		7/10	W	8	5
207	B	81039		7/10	W		veg
209	B	86027		7/18	P		5
211	B	86019		7/9	W		veg
213	B	81766		7/7	P		5
215	B	86133		7/10	P		veg
217	B	Manchu					

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
181	C	54618-4		7/9	W	8	7
183	C	80831		7/12	W	7	5
185	C	84668-1		7/17	P	7	veg
187	C	84957		7/17	P		5
							manseon
189	C	85671-1		7/12	P		5
191	C	86103		7/11	P		veg
193	C	86130		7/12	W		5
195	C	87530		7/11	W	7	5
197	C	88293		7/9	P		4
199	C	Mandhu					
201	C	88301		7/10	W		6
203	C	88350		7/10	W		5
205	C	88356		7/9	W		5
207	C	82183-1		8/9	P	5	2
209	C	86029		7/16	W		5
211	C	81767		7/12	W		5
213	C	81912		7/28	P		7
215	C	86134		7/11	P		veg
217	C	Mandhu					

Rovv	Range	Selection	Seed Color	Date Bloom	Color Bloom		Bloom
181	D	80480		7/18	W		5
183	D	81028		7/18	W		5
185	D	84678		7/5	P&W	7	3
187	D	84964		7/5	W+P		5
189	D	85671-2		7/19	W		5
191	D	86115		7/9	W		5
193	D	86449		7/5	W		6
195	D	87531		7/10	W		4
197	D	88293-1		7/9	P	7	4
199	D	Manchu		7/5	P		
201	D	88304		7/6	W		5
203	D	88351		7/10	W		5 wauseon
205	D	88359		7/11	W	8	6
207	D	84751		7/17	W	7	5
209	D	86416		7/10	W		veg
211	D	81768		7/18	P		5
213	D	81962					
215	D	86137		7/12	P	6	5
217	D	Manchu					7

Row	Range	Selection	Seed Color	Date Bloom	Color Bloom		Value
181	E	80485		7/20	W		5
183	E	81031		7/11	P		veg
185	E	84680		7/6	P		6
187	E	84965		7/17	P		5
189	E	86028		7/19	P		4
191	E	86116		7/19	P		4
193	E	86141		7/10	P	only row	4
195	E	87634-1		7/20	P	6	4
197	E	88295		7/10	P		5
199	E	Manchu		7/4	P		
201	E	88307-1		7/6	P		5
203	E	88352		7/10	W		5
205	E	81026		7/8	P		5
207	E	86021		7/6	P		veg
209	E	87629-1		7/20	P	4	4
211	E	81041		7/12	P		veg
213	E	81962					
215	E	Burwell		7/10	P		veg
217	E	Manchu					

Row	Range	Selection	Seed color	Date Bloom	Color Bloom		Value
181	F	80488-1-1		7/19	P	7	5
183	F	81780		7/18	P	6	veg
185	F	84914		7/4	W		4
187	F	84988		7/18	W		4
189	F	86089		7/10	W		6
191	F	86123		7/12	P		veg
193	F	86453		7/18	W		7
195	F	88283		7/6	W		5
197	F	88296		7/17	W	8	5
199	F	Manchu					
201	F	88309		7/10	P		5
203	F	88353		7/11	W	7	5
205	F	81029		7/10	W		veg
207	F	86023		7/16	W		veg
209	F	84580		7/4	P	6	4
211	F	81763		7/12	W		5
213	F	86032		7/10	P		
215	F						
217	F	Manchu					

Holgate 1932
Latitude - Fertility

	Treatment	Variety
0		manchu
1	Check	minsoy
2		manchu
3		mam yel.
4		manchu
5	300# KCl	minsoy
6		manchu
7		mam yel.
8		manchu
9	300# P_2O_5	minsoy
10		manchu
11		mam. yel
12		manchu
13	300# KCl 300# P_2O_5	minsoy
14		manchu
15		mam. yel
16		manchu
17	300# KCl 300# P_2O_5 150# $(NH_4)_2SO_4$	minsoy
18		manchu
19		mam. yel

Minsoy bloomed 7/4/32
16" tall
Manchu bloomed 7/15/32
24" tall

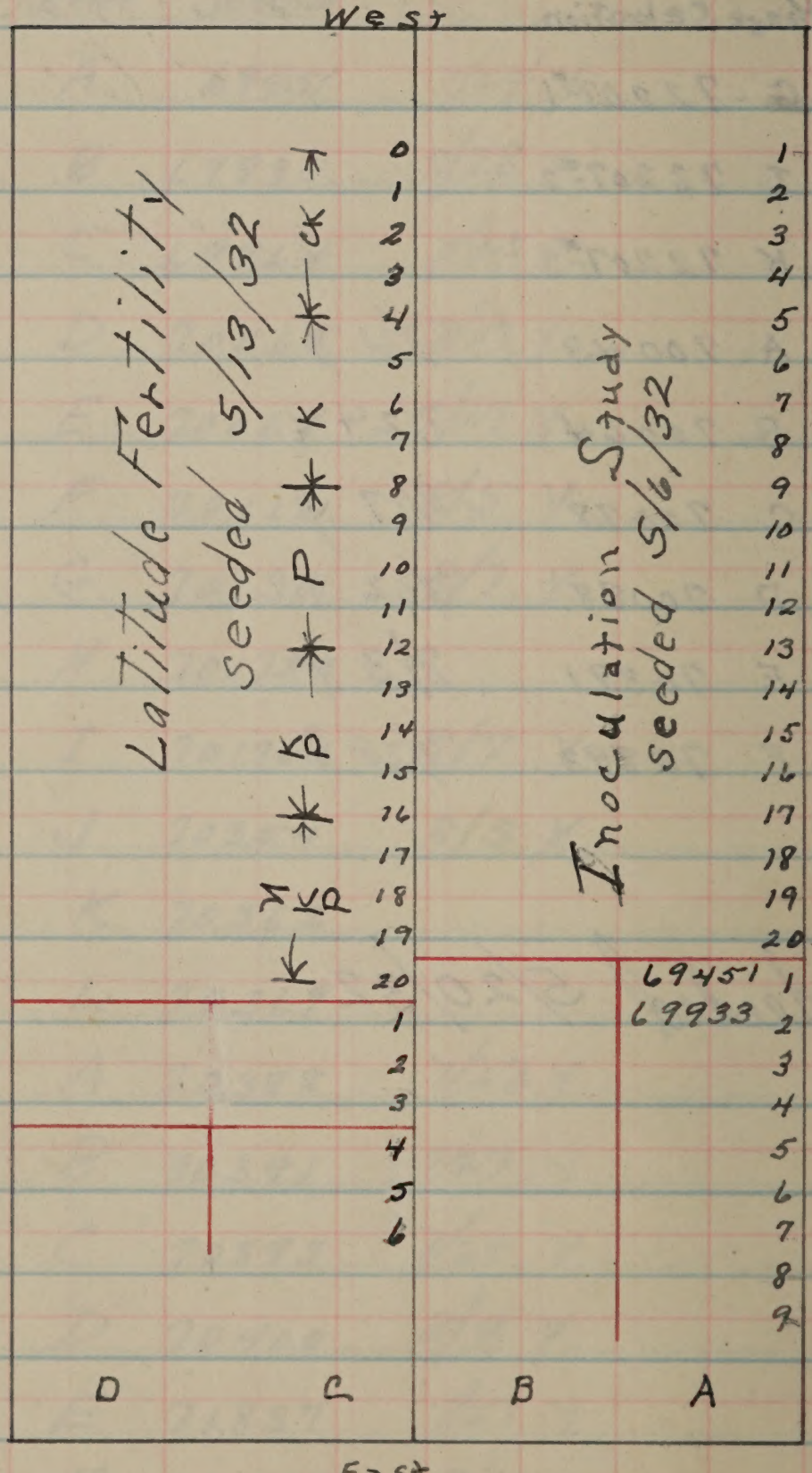
Mung Beans 1932

Row	Range	Selection	
1	A	69451	7/24 y
1	B	69933	7/28 y
1	C	69964	7/28 y
1	D	70065	7/27 y
1	E	70069	7/27 y
1	F	70118	8/5 y
1	G	70130	8/7 y
1	H	70173-1*	
1	I	70173-2*	8/7 y
1	J	70354	8/5 y
1	K	70362	
1	L	70369	
2	A	70388	7/22 y
2	B	70391	7/27 y
2	C	70393	7/28 y
2	D	70400	8/9 y
2	E	71837	7/27 y
2	F	73572	8/1 y

Row	Range	Selection	
2	G	72207-#1	
2	I	72207-#2	
2	K	72207-#3	
3	A	70043	7/21 Y
3	B	70064	7/24 Y
3	C	70078	7/17 Y
3	D	70088	7/22 Y
3	E	70391	8/3 Y
3	F	70893	7/28 Y

Seeded 5/20/32

Sand Plots 1932



General Notes

6/9/32 – all beans weeded thoroughly in A.M. (6:30 to 10:10)

7/1/32 – Weeded thoroughly 3PM to 6 PM.

7/9/32 – 2 nor. study – 10 pl. dug from each row – nodules sent to Wooster 1 P.M. to 4:15 P.M.

Mung Beans at Wauseon

Row	Range	Selection
1	A	69451
2	A	69933
3	A	69964
4	A	70065
5	A	70069
6	A	70118
7	A	70130
8	A	70173-#1
9	A	70173-#2
1	B	70354
2	B	70362
3	B	70369
4	B	70388
5	B	70391
6	B	70393
7	B	70400
8	B	71837
9	B	73572

Row	Range	Selection
1	C	72207-#1
2	C	72207-#2
3	C	72207-#3
4	C	70043
5	C	70064
6	C	70078
4	D	70088
5	D	70391
6	D	70893

Seeded Hlg + Washington numbers 5/18/32
" Cutler numbers 5/20/32

Sand Plot 1932
Latitude-Fertility

	Treatment	Variety
0	Check	manchu
1		minsoy
2		manchu
3		mam. yel.
4	300# KCl	manchu
5		minsoy
6		manchu
7		mam. yel.
8	300# P_2O_5	manchu
9		minsoy
10		manchu
11		mam. yel.
12	300# KCl 300# P_2O_5	manchu
13		minsoy
14		manchu
15		mam. yel.
16	300# KCl 300# P_2O_5 150# $(NH_4)_2SO_4$	manchu
17		minsoy
18		manchu
19		mam. yel.

Minsoy bloomed
about 7/1/32
ht. 18"
manchu bloomed
7/8/32
ht. 21"

mam yel 20" tall on 7/8

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BUREAU OF PLANT INDUSTRY.
FORAGE-CROP INVESTIGATIONS.
8—3728

115 C
176 E

1932 Latitude Columbu

hay harvested 8/25/32

Munson - 20"

Marathon - 34"

Many - 32"

A - B + C harvested

✓ poor land D + E

" " A B C

A B C D E F

81025
81654
86802
81770
86088
88481

84923
86117 no germ
81022 1/2

82278

79857
84970 87528
86131
86139
68497

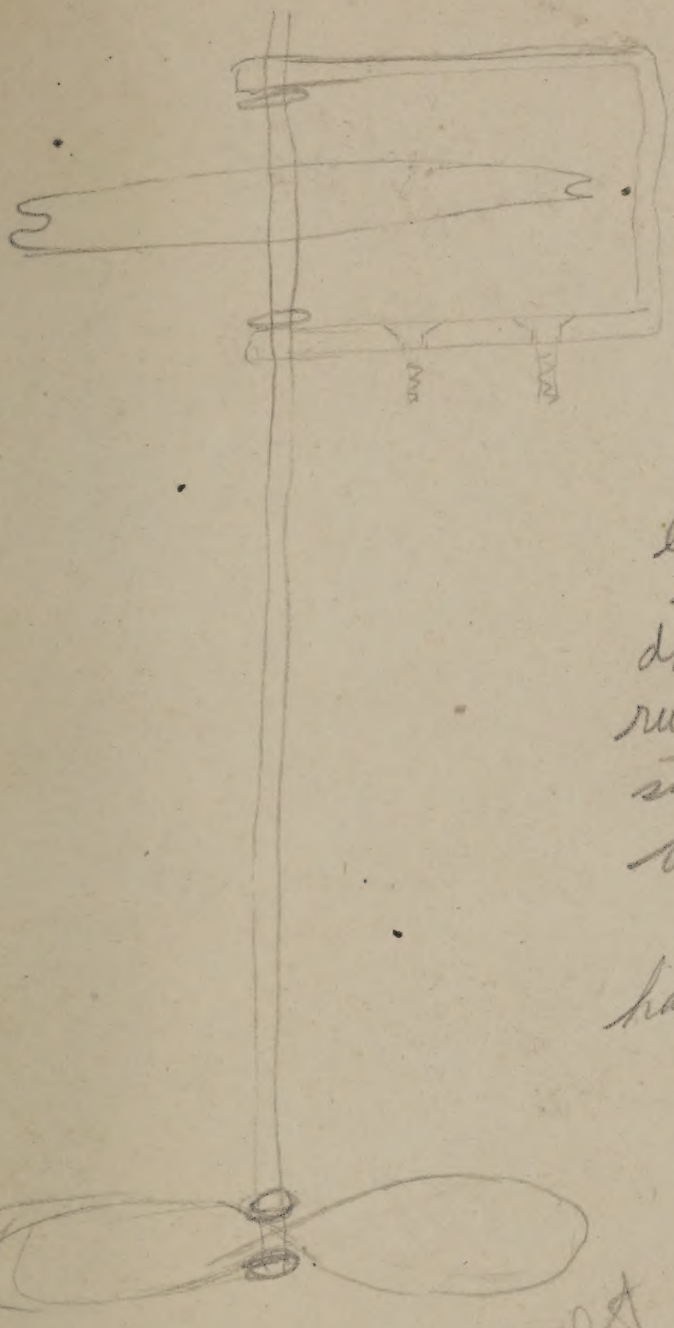
Poor germ 5/24/32

22278

5/24/32 - first miniature emerging irregularly - dry selections row 1-59-2" tall fair emergence - Row 60-216 - emerging to 1" tall fair emergence.

End - 10B row 4 - seeded?

70466-3-103 - make sel lot pk



stirrup
7/18/32

lt ~~br~~
br
dk br
russet br
slate
bl

harvested all pl. sep
80488-1-1
?81785-1 (19

make selection plot 1933
73d ✓ 73c - sawing plants ✓
193d - make sel
~~6~~ - few ind.
~~10~~ "
92 f
6 "
saved